Understanding Regional Start-up Success: A Lily Not Yet Guilded

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Abstract
This paper illustrates an evolutionary process that is consistent with the primary domains of evolutionary theorising, namely ecology and biology. In doing so, this paper presents an alternative explanation of how certain type of regional start-ups have managed to survive where others have failed. This account challenges the validity of many accepted ways of accounting for internal and external factors assumed to be responsible for success or failure. This paper goes beyond the current practice of accepting an interrelated process between environmental selection and firm adaptation. This is achieved through the importation of key ecological concepts such as niche construction, selective environmental neighbourhoods and kin selection. As a result, this paper challenges key terms used in organizational studies literature, specifically, selection and environment. The paper's empirical context is a case study of the Hobart Pizza Industry from 1969 till the present. Both quantitative and qualitative data is discussed from the perspective of preliminary findings. The quantitative data is analysed using SPSS Survival Analysis and the qualitative data is used to identify motives related to strategic change through the life history of each firm. This paper highlights the frequent unimportance of perceived fitness in regional pizza shops. Evidence is provided to demonstrate a process of survival dependent upon location, resource partitioning and kin selection. A general proposition that franchised pizza firms have altered the survivability of regional pizza shops through the transferring of demand for pizza. This proposition is discussed through the presentation of four testable postulates. Through a constant focus on Geoffrey Hodgson's Principle of Consistency, this paper unravels many arguments that continue to prevent the development of an evolutionary approach to entrepreneurship. It returns a focus to the minimal requirements of conducting research employing an evolutionary approach. In summary, this paper introduces a focus many old concepts that should not be ignored when conducting research employing an evolutionary approach.

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Introduction

Consider the beaver, one of the world's most industrious animals whose gift to our world extends beyond the management of water flows and soil preservation. Long recognised by the native American Indians as a *sacred center*, they are also responsible for creating profitable habitats for many other species. For example, the beavers' dams increase water levels to enable turtles to occupy deeper and calmer waters, safe from traditional predators. Put simply, beavers have such a profound effect on the flow of vital resources to other species; they are considered a *keystone* species in their ecosystems (Jones, Lawton & Shachak 1997). Until recently, the actual consequences of such behaviour to evolutionary thinking have lain dormant. Olding-Smee, Laland & Feldman's (2003) extended evolutionary theory brings to life the neglected process of niche construction. A process first contemplated by Darwin (1881) in his last seminal work and more recently championed by Lewontin (1983). The primary assertion being that any explanation of the process of adaptive change must cater for the ongoing reciprocal interaction between the organism, its generative mechanism and the environment. In summary, rather than merely being on the receiving end of natural selection, organisms both make and are made as a consequence of interaction with their environment.

The above introduction contains an important idea whose time in organizational studies has not come to pass. Despite Darwin's (1881) observations that worms not only not only change the soil they inhabit, but also ensure a process of ecological (as well as genetic) inheritance, this obvious (and ubiquitous) process has not been a feature of empirical organizational studies. Given March's (1994, p. 43) concern that an over emphasis on environmental selection (within evolutionary theorizing) ignores "the fact that the environment is not only changing but changing partly as a part of a process of coevolution", this absence of focus is a serious concern. Similar concerns have been echoed by Popper (1972, p. 149) who notes that "it is not only the environment that selects and changes us–it is also we who select and change the environment". If indeed environments can be inherited along with other firm specific traits, then such processes must be factored into any form of evolutionary analysis of socio-economic change. Yet, only two papers (Luksha 2005; Jones 2006) appear to explicitly argue for the inclusion of this previously neglected process. This paper attempts to strengthen that call through the presentation of preliminary empirical findings that identify niche construction as a generative mechanism related to regional firm survival.

The remainder of the paper proceeds in the following manner. First, a brief review of the literature related to niche construction is presented. This discussion is then connected to several problematic issues that have remained unsolved in the literature, that are relevant to the process of niche construction. The last section of the literature review relates to generative mechanisms, their presence and significance to those who investigate socio-economic change using an evolutionary lens. Second, an overview of the research method employed thus far is presented. Third, the preliminary findings associated with the Hobart pizza industry are presented and the nature of the findings discussed vis-à-vis their relevance to the aforementioned literature review. This section also includes the presentation of four initial postulates developed to advance confirmation of the proposition that the niche construction is a central and indispensable process at the heart of any plausible explanation of firm survival in the Hobart pizza industry. The paper concludes with a brief commentary on the implications of the preliminary findings presented.

Niche Construction

Since the work of Lewontin (1983), many ecologists and biologists have sought to draw attention to the fact that organisms directly and indirectly impact upon the availability of resources within any given ecosystem. The publication of Olding-Smee, Laland & Feldman's (2003) recent work would seem to have delivered much legitimacy to the past efforts of Jones, Lawton & Shackak (1994; 1997) and Jones & Lawton (1995) to advance the concept of ecosystem engineering and Laland, Odling-Smee & Feldman (1996; 1999; 2001) to re-establish niche construction as a major process in evolution. The praise of this recent work has begun to flow freely from the most pre-eminent scholars in the fields of biology and ecology. David Hull,

the well renowned philosopher of biology made the following comments in his review of Olding-Smee, Laland & Feldman's (2003) contribution:

> "The authors realize that clear exposition is not enough: they must provide evidence for their theory and show that niche construction can explain these data better than any other evolutionary process. They also have to show that niche construction is widespread, significant, and at least partially independent of natural selection. In this book they have succeeded on all counts. In fact, the authors have fulfilled all the requirements for genuine science so well that I find it difficult to see how anyone will be able to ignore their Extended Evolutionary Theory" (2004, p. 316).

Thus, a previously neglected paradigm of thought is once again emerging in the domains of ecology and biology, a paradigm that clearly has implications for those that rely upon an evolutionary lens to investigate socio-economic change. The focus of determining organizational fitness would seem no longer restricted to investigating organizational traits, routines and reputations (Jones 2005). It would seem that granting (firms) the ability to modify (in some degree) the process of selection acting upon their operations and of other competitors and non-competitors located in common operating environments changes everything. Literature in one domain it would seem is about to add vitality to that in another. However, when introducing old/new ideas to help construct new explanations of organizational change, reliability is enhanced through adherence to the principle of consistency. Hodgson (2001, p. 92) states "explanations in one domain have to be consistent with explanations in another, despite examination of different properties and deployment of different concepts". This simple, yet exacting principle requires that in many instances we must go backwards (in degrees of understanding) before we can advance. Let us briefly confirm the main ideas arising from the introduction of the niche construction concept to the socio-economic domain before briefly considering the some obvious implications that also arise.

First, the activities of firms may result in important, consistent and directed changes to a local environment. Second, and leading on from this first idea, if firms enact important change within their environment, they may also change the process of natural selection in their selective environment as well as in the selective environments of other firms. Third, it may be possible that when firms are responsible for sustained niche constructing activities, they make possible the ecological inheritance of a more favourable selective environment to other future generations. The fourth and last idea to arise is that the previous forms of explanation regarding firm adaptation (i.e. selectionist versus adaptation) may therefore be incapable of accounting for the process of niche construction. Only the pragmatic philosophy of those that attempt to advance a more contingent process of adaptation (e.g. Levinthal 1991; Haveman 1992; Amburgey, Kelly & Barnett 1993; Bruderer & Singh 1996) would appear genuinely open to the possibility that some other process awaits discovery.

However, just as a beaver's work occurs independently of observations, it is also likely the process of niche construction does as well. This represents a methodological dilemma for researchers attempting to determine the underlying reason why some firms survive where others do not. At the heart of this research process is a desire to discover an unaccounted for generative mechanism/s associated with firm survival. The aim is to develop a theory that accounts for any such generative mechanism, the events caused under specific contingent conditions and any other mechanisms or conditions that may counteract or decrease the expected (or potential) influence of the focal mechanism under investigation. In doing so, this research aims to address several problematic issues in the literature. For example, there is a tendency within organizational studies to over aggregate data leading to findings that converge towards predictable outcomes, but ignore local irregularities. The early work of Freeman and Hannan (1983) is an example of where local data is aggregated to the degree that *local* processes are most likely eliminated. Very little of the logical criticism of population ecology theory (as applied to organizational research) has been adequately responded to (e.g. Young 1988). Two primary reasons are the difficulty of accounting for unobserved heterogeneity in commonly used models (Petersen & Koput 1991) and the problematic issue of population boundaries (Singh 1993). In short, there are too few beavers featuring in our empirical investigation of firm survival.

Interestingly, the highly innovative paper by Kangas and Risser (1979) is rarely cited by those that seek to transfer evolutionary ideas from the natural to social domain. This is very disappointing given that this work provides direct reference to the early work of Root (1967) and his pioneering ideas of the guild. For Root, a guild provides a means of focusing on similar species that use similar resources in a similar way. In this way, boundaries emerge from the ecological context, rather than a convenient sampling frame. We are free to allow for other possible interactions that may ultimately influence the probability of firm survival. Thus, we remain to true to one of Darwin's (1901) more memorable metaphors, the entangle bank, by accommodating diversity and interaction to remain embedded in our observations. The following section briefly outlines the nature of the research method being used.

Research Method

As noted above, current theory used within the domain of organizational studies does little to account for generative mechanisms with a capacity to cause observable events under contingent conditions (Tsoukas 1989). The main purpose of this research is to discover or develop theory that better explains population level change within the domain of organizational studies. In comparison to other types of research (e.g. explicit theory testing), a different research methodology is required to support the objective of theory development. Therefore, and despite that fact that any new theory will be realistically grounded in empirical data, an epistemology that emphasises theory development is required (Bhaskar 1975).

Given the theory generation objectives of this research, an epistemology drawn from the realist paradigm (Bhaskar 1975) has been used. This is inline with an ontological position that the world "consists of abstract things that are born of people's minds but exist independently of any one person" (Healy & Perry 2000, p. 120). This is important given the primary research objective of furthering an account of generative mechanisms that includes ascribing (causal) power or potentiality under a given set of contingent conditions. Good science not only seeks to predict a particular relationship between independent and dependent variables, it also explains how and why these factors are related to one another (Gerring 2005). An important issue when it is accepted that generative mechanisms "may either be dormant for a while or they may be counteracted by opposing mechanisms and lead to no events" (Tsoukas 1989, p. 553).

The research design is modelled on Wollin's (1995, p. 81) combination of analytical induction (Denzin 1978) and processual case design (Pettigrew 1997) to investigate underlying processes related to rural industry group emergence and change. Processual case analysis was used to allow the (comparative) observation of events over time from which certain patterns of events located in specific contexts lead to particular outcomes. Importantly, Pettigrew argues this approach must account for both the inner and outer contexts related to the phenomena under investigation. A primary assumption of "process thinking is that social reality is not a steady state" (Pettigrew 1997, p.338). The case study method it is ideal for attempting to teasing out and explaining generative mechanisms.

To date, the process has proceeded on the basis of combining the data received from unstructured interviews and analysis of archival phone listing records. This approach has enabled both accurate and codable data to be used in conjunction with data representative of the views of the operators across the life course of the industry. The phone listing records in particular offer valuable insights (Usher & Evans 1996) into the goals, boundaries and activities of each firm over time. The statistical software package SPSS 13.0 was used to provide an initial analysis of the data using its survival analysis program. Issues arising from these preliminary findings will be explored during the conclusion by way of inviting further investigation of such issues.

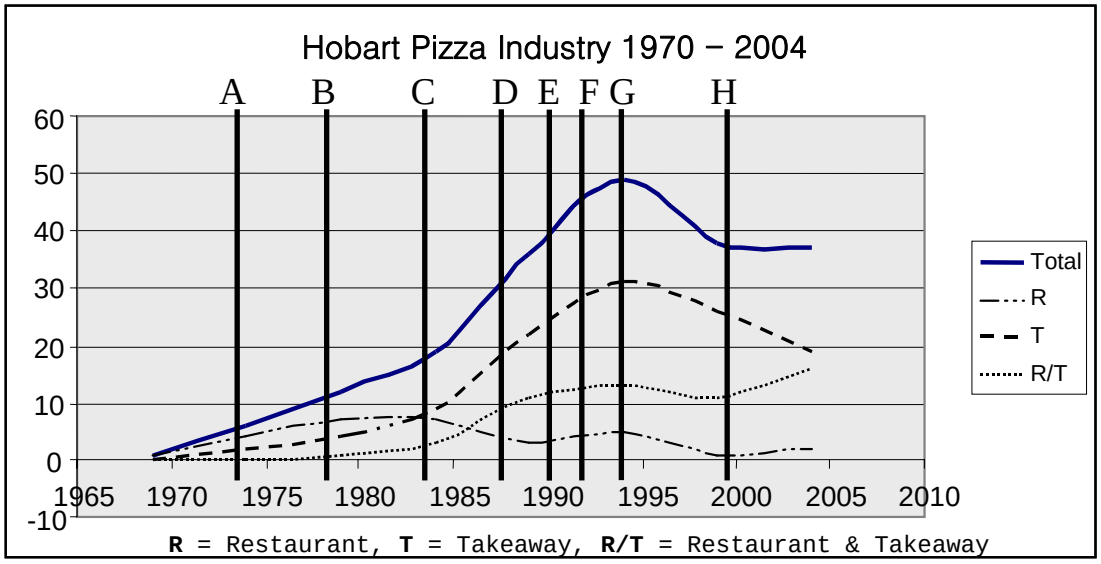
The Hobart Pizza Industry - Preliminary Findings

The Hobart pizza industry grew from the humble, yet passionate aspirations of a few Italian post-war immigrants. Commencing in 1969, the few restaurants that comprised the industry were frequented mainly by Italians. During the past 37 years, more than 115 firms have contested the market, with around 38 open for business today. The industry has been the playground of many irrepressible entrepreneurs, the burial ground for many an honest operator, and the battle ground for various franchised operations. The story of the Hobart pizza industry is essentially one that relates to the constant interaction between those early pioneers, those

that followed, and those that entered the market with national or global operations already in existent.

The industry's history can be divided into three distinct periods. The first period (1969 – 1983) covered the years before the entry of the first franchised operator. The second period (1984 – 1994) was post the first franchised entrant, but prior to the entry of the second franchise operation. The third period (1995 – to present) relates to the period after the entry of the second franchise operation to present. The following discussion will reveal the significance of the period effects noted in Figure 1 below. In general, the industry has been transformed from low volumes and high profits to one that now has high volumes and low margins. The many social trends that have accompanied the industry's growth are perhaps best considered throughout the following discussion of each distinct period.

Figure 1 – The Hobart Pizza Industry 1969 - 2004



Period Effect Legend
A = Opening of Wrest Point Casino
B = Introduction of the 1976 liquor Act
C = Introduction of First Franchise Operator & Random Breath Testing
D = The Beginning of Home Delivery
E = The 1990 Recession
F = The Introduction of Conveyor Belt Ovens
G = The Introduction of Second Franchise Operator
H = The Introduction of the GST

Period One – 1970 to 1982
Like many Australian cities, Hobart was positively impacted upon by the multicultural influence of the many post-war migrants who made Australia their new home. The pizza industry was one such development, complete with its own sense of theatre (e.g. the tossing of the dough). However, the primary market of the few restaurants in the early 1970s was soccer clubs and other social groups intimately tied to the Italian community. The nature of consumer demand for pizza was radically altered by two events in the 1970s. The first in 1974 being the opening of Australia's first legal casino in Hobart. The second in 1977 being the changing of the local Licensing Act to allow patrons to frequent hotels and bars beyond 10pm.

The effect of these two interrelated events was very significant. Firstly, the Casino created after hours demand for food, for which at that time the only establishments open late were pizza shops. Following the protests from hoteliers that the Casino had an unfair advantage (i.e. a virtual monopoly for entertainment after 10pm), the relaxing of general opening hours for all hotels and bars turned the Casino's trickle of customers into a flood of hungry patrons. Many more Italians entered the industry to take advantage of the good times. Whilst many of the new

operators had little knowledge of how to make a pizza, the social networks common to them all ensured the transfer of knowledge. This transfer of knowledge also frequently occurred at the Casino where many of the pizza shop owners would meet to 'brag' and swap stories and information related to their individual operations. Given the even distribution of their operations throughout Hobart, little competition existed amongst the pioneers, who at this stage struggled to keep up with demand, in what was still a high margin industry.

Period Two – 1983 to 1993

The next major event in the industry was the arrival of the first franchise operator (F1). Far from being viewed negatively, F1's presence appears to have benefited incumbents in a number of specific ways. First, it substantially increased the primary demand for pizza. Second the marketing methods used by F1 to stimulate primary demand were quite visible and relatively easy to copy by the incumbents. Finally, F1's presence led to a change in the time that pizza was consumed. Pizza became not solely the domain of the drunken and partied, it moved back towards those about to party, those thinking about dinner or even lunch. By altering the hours during which pizza was consumed, many pioneers were encouraged to remain in the industry. The need to be 'on deck' when production was peaking, typically after 10pm, had eased. Owners could now work restaurant hours, returning to a more normal life through having a manager in charge to finish the late shift.

The future of the industry was then reshaped by the entry on of a new innovative entrant who introduced the mainland practice of home delivery to Hobart. This further stimulated demand and was associated with increasing new entrants. Throughout this period the positive influence of F1 on the industry continued. As they ran television advertisements, it acted to increase demand at many local pizzerias. What emerged were two specific consumers, those that stayed loyal to their perceptions of quality, and those that were more price conscious. With around 26 firms operating in the industry, there were calls for government regulation from those incumbents who felt the market was nearing saturation.

Home delivery was a huge success, occurring at a time when drink driving was increasingly frowned upon. It was a time of unbridled experimentation and innovation. Many operators increased their efficiency to counteract the decreasing margins caused by increasing competition, installing computerised systems and purchasing new equipment. The conveyor belt oven was one such innovation that gained a foothold. However, despite its ability to smooth production, improve quality, and reduce employee injuries (e.g. burns), its use was not positive for all. For some, the conveyor belt oven provided the opportunity to use less skilled labour, potentially threatening the levels of service and quality in other aspects of the business. By 1993, around 50 firms were operating in the Hobart pizza industry.

Period Three – 1994 to Present

The arrival of the second franchise operator (F2) in 1994 radically changed the nature of the industry. The past focus on promoting pizza in general gave way to increased price competition. The population size fell rapidly (17 exits over three years) as F2 adopted a 'fastest gun in the west' approach to pricing. This was further reinforced with the arrival of the third franchise operator (F3) in 1996. Three factors in particular seemed to greatly influence who stay and who left. Firms that were unable to maintain prerequisite levels of great food, service, and ambience were in the direct line of fire. Market forces that had apparently lay dormant for many years all of a sudden selected against them. It would seem that while many firms had adapted to an operating environment using a quality baseline, other firms unable to deliver (or develop in time) these three success factors and were susceptible to competing upon a price dependent (cost) baseline.

While pizza had been elevated from a meal fit for the court jester to one fit for royalty, both customer types still remained. While the court jester's needs can be satisfied by the likes of F1, F2, and F3, it required an entirely different type of business model to compete within the quality end of the market. The middle ground was the most dangerous path travelled. If the time period that covers the two years prior and after F2's entry (1992 to 1996) is considered, it is clear that survival was a tough assignment for new entrants. Of the 23 start-ups during this time period, only 5 survived to the present. The survivors are all linked by previous industry experience, good locations (especially regionally based shops), and a focus on quality. Quality is

still the main driver, as is innovation. One particular local entrepreneur, Mario, was one of the first operators to fully exploit the takeaway nature of the industry when he opened his Pizza Palace in 1977. He was the first local operator to exploit the demand for home delivered pizza, and has opened many outlets throughout southern Tasmania. He now sells pizza by the slice, targeting an entirely different target market.

The last significant change in the operating environment was the introduction of a Goods and Service Tax (GST) in 2000 by the Australian Federal Government. It is unclear to what degree this caused problems to existing operators given that well-established operators have continued through its introduction until the present. For the franchised operators, their market segments are contested through continual product innovation and pricing strategies. At the other end of the market, the passionate pursuit of quality, service, and ambience remain the keys to success. The middle ground remains for the wily operators to traverse; getting it right in the middle is not as easy as it was when the market was booming in the late 70s and 80s. Those that have survived the past 30 years in this industry have done so through an ability to exploit their own strengths and find a way through a maze of different organizational forms and production and marketing processes.

In summary, during the past 37 years a series of period effects (Aldrich 1999) have both positively and negatively shaped the nature of the industry. At times, selection forces appear to have been operating in different ways, and even sometimes appearing to have been almost non-existent. Further, it would seem that F1 has provided some form of protection to the local independents operators, whereas F2 and F3 have behaved in a predatory manner.

Discussion

Many of the preliminary findings to emerge from analysis of the Hobart pizza industry has been discussed elsewhere (Jones 2007). In this section of the paper, these findings will be briefly discussed before the issue of niche construction performing the role of a generative mechanism is considered. As such, the arguments presented provide a new starting point for the next case study within the research process. Therefore, this discussion is built around the development of three postulates.

Previous findings include discussion of the unevenness of the environmental selection. It was observed that even across small geographical distances (i.e. less than 20km) selection varied greatly. Little rhyme or reason seemed associated with who survived or stayed from the perspective of assuming *survival of the fittest*. This lead to the introduction of Brandon's (1990) notion that we must factor into any evolutionary analysis three types of environment. He identifies these as the external, ecological, and selective environments. He states the need to determine the degrees of heterogeneity across time and space with regards selection pressure. That is, to determine to what extent firms of a similar type experience different survival prospects based on factors beyond their control.

Typically, selection is seen to occur through the interaction of an entity and its environment. However, as discussed, the concept of environment in other fields is seen as being more than one general force. The external environment typically refers to the sum total of all factors external to the firm that influence its survival. However, this view of environment does little to highlight which factors are of most importance to one firm or another. It essentially relates to the factors that all firms in all industries are exposed to (e.g. high interest rates). The ecological environment refers to a narrowing down of focus. Now we are only concerned with those factors that specifically affect a firm's ability to contribute to the growth of its industry (e.g. the increasing availability of resources). The last form of environment is the selective environment. The selective environment refers to those factors of the external environment that specifically determine the differential fitness of the firm's interacting elements (i.e. consumer taste).

Also discussed was the presence of kin selection (Mayr 1997), whereby the actions of the first franchise firm provided unintentional benefits to all other firms within the Hobart pizza industry. The process of kin selection was also observed after the entry of the second and third franchised firms. However, the nature of the advantage was restricted to regional firms, and to a lesser degree those independents located in the suburbs. The concept of selective environmental neighbourhoods (Brandon 1990) provides an avenue of investigation for the

observed differential relative fitness (across time and space) of apparently similar firms within a population. Thus, regional, suburban and metropolitan neighbourhoods emerge as areas within which selection operates differently.

In summary, it was concluded that the environment can be broken into different forms, the external, ecological and selective. The ecological environment contains those factors that influence potential growth and the selective environment relates to those factors specifically associated with differential selection. The nature of selective pressure can have a disruptive, stabilizing, or directional influence on the composition of the industry. There are unequal degrees of selection pressure spread across time and space that relate specifically to identifiable neighbourhoods within which similar types of firms will not be selected for or against equally. Lastly, this process of interaction between the firm and its selective environment can be influenced positively or negatively by the presence of kin selection. Clearly, this is a more involved process of selection than typically outlined in many post hoc deductive evaluations of how industries change.

These findings challenge the power of density-dependence and niche-width theories. Over the life course of the Hobart pizza industry, there was no obvious role played by selection against weaker firms. There was no obvious process of speciation through which new organizational forms emerged to better perform in the presence of altered selection pressure. In line with Petersen and Koput's (1991) argument that unobserved heterogeneity is a pervasive, yet largely ignored factor in evolutionary accounts of population change, the issue of niche construction again surfaces. What would seem to be occurring in the case of the Hobart pizza industry is a process of transferred demand. This process relates to the notion of kin selection whereby behaviours (intentional or unintentional) by one actor towards another, that while beneficial to the recipient, may be at least potentially harmful to the actor (Mayr 1997). When the survival rates of all firms listed under the Yellow Pages categories of *fast-food* and *restaurants* in those areas deemed regional are determined, an interesting finding emerged. Pizza shops demonstrate disportionate survival in comparison to all other competing firms. This pattern of high survival only begins after the entry of the first franchise entrant, and is accentuated after the entry of the second and third franchises.

An emerging proposition is that the behaviours of the franchised pizza firms have altered the survivability of regional pizza shops through the transferring of demand for pizza. The remainder of this section will explore the nature of this proposition by considering three postulates. Given that the outcome of the case has already occurred, these postulates must be highly testable, falsifiable and empirically supportable to advance the research process (Mahoney 2003). This is due to the fact that the explanation being developed relates to an outcome that having already occurred (cannot be tested), and therefore the challenge is too develop a set of testable postulates that tease out the presence of an (unobservable) generative mechanism.

Postulate 1: *When a population's legitimacy and density are low, franchised entrants will act a manner that increases overall primary demand for their good/service, thus decreasing the threat of external selection to all other firms*.

Postulate 2: *When a population's legitimacy and density are high, franchised entrants will act in a manner designed to increase selective demand for their good/service, thus increasing the threat of external selection for all firms*.

Postulate 3: *Independent firms will still benefit from transferred demand if they are (a) operating in a different selective environment to that of franchised firms, and/or (b) are exploiting a different environmental niche*.

The most striking finding to emerge so far is that the local environment appears (in contrast to all other food providers) to have been transformed from one that is typically oligotrophic (i.e. offers little assistance) to one that is eutrophic (i.e. offers substantial assistance). The survivability pre-franchised organizations for regional firms was far less than that of suburban and metropolitan pizzerias. Yet this pattern reversed itself post-franchised organizations. It would seem that when population density is low, little threat is created through the introduction

of the first franchised pizza organization. The lack of legitimacy surrounding pizza meant that it was vital for the franchised organization to act in a manner that increased the primary demand for pizza in general. As such, all firm benefited from the visible and powerful marketing activities of the first franchised firm. This process held true (and even increased) as the first franchise expanded their outlets to six. During this phase (i.e. period two) it would seem that the ecological environment has been altered positively with increased consumer demand a general benefit to all.

However, the advent of the second and third franchised organizations reversed this trend in the metropolitan areas. Now, it was the selective environment that was altered negatively. It would seem that once the population density had risen and the market had proved it worth, other franchised organizations could not resist entering. The marketing activities of the second and third franchised organizations were based upon the objective of achieving selective, rather than primary demand. Essentially, they didn't want to increase the size of the playing field, they want to invade the playing field. Using their substantial resources they achieved this easily, acquiring approximately 40% of market share within a short period of time.

Although the direct presence of these organizations was predominately in the metropolitan area, many independent firms located close by continued on with little discomfort. The entry of the second and third franchised organizations highlighted the degree of resource partitioning (Carroll 1985) that had naturally occurred in the market. Over time the traditional values and quality offering of many independent pizza restaurants had emerged as a distinct alternative to the cheaper take away end of the market. However, now the contrast became obvious, with metropolitan survivability essentially determined by that one positioning factor. Interestingly, this process of resource partitioning also partially claimed the first franchise organization that was neither seen as a quality producer nor as highly efficient in comparison to the new entrants. This outcome adds weight to the need to factor in kin selection into the explanation as it was through the prior actions of the first franchised firm that they benefited others whilst eventually exposing their own limitations vis-à-vis an altered selective environment.

Alternatively, independent regional firms (and many suburban) firms appear to continually benefit from transferred demand due to their presence in a different selective neighbourhoods. As a result, a fourth postulate is possible through which confirm the presence of transferred demand as a primary determinate of regional firm survival.

Postulate 4: *The increasing presence of franchised firms will decrease the need for regional firms to act as generalists in the local market*.

Kangas and Risser (1979) suggest that it is through the process of generalisation that regional firms would develop a buffer against changing consumer tastes. That the limitations of a small customer base would prevent the development of specialised menus. If transferred demand is as pervasive and influential as it would seem, then less regional independent firms need to operate as generalists to survive. This issue may also be further explored through considering why regional independents have spent a decreasing amount on Yellow Pages advertising over the life course of the industry, despite increasing competition from other regionally based firms.

Conclusion

Perhaps the most obvious conclusion that can be drawn from the discussion above is that organizational research conducted using an evolutionary approach has a long way to travel. In line with the past challenge of Aldrich (1999), this paper has introduced a number of evolutionary concepts that while common in their usage in the domains of evolutionary biology and ecology, are rarely (if ever) found in the domain of organizational studies. The emerging concept of transferred demand is most likely just one example of unobserved heterogeneity not usually factored in to survival analysis. Given the enormous range of unused evolutionary concepts that have yet to find common application within the domain of organizational studies, the task seems somewhat daunting. However, if our aim is to develop a good causal argument (the primary aim of Darwinism), then a good starting point is the recent work of Gerring (2001, p 90). Gerring tackles the issue of what are the formal properties of a causal argument and appropriate research design "that distinguish a good causal argument from a poor or uninteresting one".

For example, the introduction of the concept of guild can be defended against Gerring's (2001) first criteria, specification, yet the convenient sampling frames of much past research remain problematic with regards population boundaries. Typically, the *species* (i.e. the type of firm) under investigation in organizational studies is not identified with precision (Young 1988). Clearly there is a need to elevate the importance of Hodgson's (2001) principle of consistency. An acceptance that the application of evolutionary theory in biology and ecology is more advanced than that of other disciplines should dictate which theory base is guided by the other. This should lead to more precise research methods that avoid inferences drawn from data that is too aggregated. It would also enable the issue of unobserved heterogeneity to be adequately and constantly addressed. In conclusion, and with regards the consistent application of evolutionary theory to explain social change, we should refrain from the past process of gilding the lily. The work of Charles Darwin and its subsequent application in science represents a truly beautiful process; we should desist from spoiling it through incomplete application.

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